



S/N 09/834,095

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yoshihiro Kawaoka  
Serial No.: 09/834,095  
Filed: April 12, 2001  
Title: VIRUSES COMPRISING MUTANT ION CHANNEL PROTEIN

Examiner: Terry A. McKelvey  
Group Art Unit: 1636  
Docket: 800.026US1

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Commissioner for Patents  
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on November 4, 2002. Please amend the above-identified patent application as follows.

In the Claims

Please substitute the claim set in the appendix entitled "Clean Version of Pending Claims" for the previously pending claim set. The specific amendments to individual claims are detailed in the following marked-up set of claims.

Please amend the claims as follows:

1. (Amended) An isolated and purified recombinant influenza virus comprising a mutant ion channel protein which lacks or has reduced activity relative to the corresponding wild-type ion channel protein, wherein the mutation is in the transmembrane domain of the ion channel protein, and wherein the mutation does not alter the *in vitro* replication of the virus but is associated with attenuation of the virus *in vivo*.
2. (Amended) [The] An isolated and purified recombinant influenza virus [of claim 1 wherein the] comprising a mutant ion channel protein which is a chimeric protein.
4. (Amended) The isolated and purified virus of claim 3 wherein the substitution is in the transmembrane [region] domain of the ion channel protein.
25. (Amended) [Isolated] An isolated virus prepared by contacting a host cell with a plurality of influenza vectors, wherein the plurality of vectors comprises: a) at least two vectors

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